TABLE OF CONTENTS

NO. 1, JANUARY 1957

Corticifugal influences on intrinsic brainstem conduction in cat and monkey. W. Ross Adey, José P. Segundo, and Robert B. Livingston 1

A servoanalytic study of consensual pupil reflex to light. Lawrence Stark and Philip M. Sherman 17

Electric potentials occurring around a neurone during its antidromic activation. Paul Fatt 27

Sequence of events in synaptic activation of a motoneurone. Paul Fatt 61

Circus movements and excitation of striatal and mesodiencephalic centers in rabbits. Richard P. White and Harold E. Himwich 81

Shivering as a result of brain stimulation. Lucy Birzis and Allan Hemingway ... 91

Influence of stimulation of some subcortical areas on electrocardiogram. G. C. J. Korteweg, J. Th. F. Boeles and J. ten Cate 100

Role of auditory cortex in discrimination of changes in frequency. R. A. Butler, I. T. Diamond, and W. D. Neff 108

Announcement 121

Reviews 122

Manuscripts accepted for publication 123

NO. 2, MARCH 1957

Studies on amygdaloid nucleus of cat. C. Norman Shealy and Talmage L. Peele 125

Activity of anterior suprasylvian gyrus in response to transcallosal afferent volleys. Samuel M. Peacock, Jr. 140

Efferent brain discharge during shivering. Lucy Birzis and Allan Hemingway ... 156

Antidromic action potentials in lateral geniculate body. E. F. Vastola 167

Receptor potential of vertebrate retina. K. Motokawa, T. Oikawa, and K. Tasaki 186

Identification of neurones giving burst response in isolated cerebral cortex. B. Delisle Burns, B. Grafstein, and J. Olszewski 200

COLLOQUIUM ON THE HISTORY OF NEUROPHYSIOLOGY HELD AT THE ANNUAL MEETING OF THE AMERICAN ELECTROENCEPHALOGRAPHIC SOCIETY, ATLANTIC CITY, N. J., JUNE 1956

Foreword. Alexander Forbes 211

Rise of neurophysiology in the 19th century. Mary A. B. Brazier 212

Review 227

Manuscripts accepted for publication 228

NO. 3, MAY 1957

Announcement—Sherrington Centenary 229

Responses to electrical stimulation of caudate nucleus in cats in chronic experiments. DUANE FORMAN AND JAMES W. WARD 230

Peripheral mechanism of nervous activity in lateral eye of horseshoe crab. TSUNEO TOMITA 245

Action of strychnine on recruiting responses of dendrites of cat cortex. M. H. CLARE AND GEORGE H. BISHOP 255

Latencies and pathways for cutaneous projections to posterior cerebellar lobe. G. LAMARCHE AND F. MORIN 275

Somatic receiving areas of cerebral cortex of squirrel monkey. ROBERT M. BENJAMIN AND W. I. WELKER 286

Ablation of temporal cortex and discrimination of auditory patterns. IRVING T. DIAMOND AND W. D. NEFF 300

COLLOQUIUM ON THE HISTORY OF NEUROPHYSIOLOGY HELD AT THE ANNUAL MEETING OF THE AMERICAN ELECTROENCEPHALOGRAPHIC SOCIETY, ATLANTIC CITY, N. J., JUNE 1956

Excitation at synapses. HARRY GRUNDFEST 316

Manuscripts accepted for publication 328

NO. 4, JULY 1957

Effect of cortical stimulation upon epinephrine activity. R. W. FERGUSON, BJORN FOLKOW, M. G. MITTS, AND E. C. HOFF 329

Terminal rebound of galvanic skin reflex in anesthetized cats. G. H. WANG AND V. W. BROWN 340

Motor effects of stimulation of cerebral cortex of squirrel monkey (*Saimiri sciureus*). W. I. WELKER, ROBERT M. BENJAMIN, AND RAYMOND C. MILES 347

Reinnervation of nictitating membrane of cat by cholinergic fibers. CRISTIÁN L. VERA, JUAN D. VIAL, AND JOAQUIN V. LUCO 365

Response properties of neurons of cat's somatic sensory cortex to peripheral stimuli. VERNON B. MOUNTCASTLE, PHILIP W. DAVIES, AND ALVIN L. BERMAN 374

Modality and topographic properties of single neurons of cat's somatic sensory cortex. VERNON B. MOUNTCASTLE 408

COLLOQUIUM ON THE HISTORY OF NEUROPHYSIOLOGY HELD AT THE ANNUAL MEETING OF THE AMERICAN ELECTROENCEPHALOGRAPHIC SOCIETY, ATLANTIC CITY, N. J., JUNE 1956

Stimulation and ablation. Their role in the history of cerebral physiology. A. EARL WALKER 435

Announcements 450

Review 451

Manuscripts accepted for publication 452

NO. 5, SEPTEMBER 1957

Functional organization of descending vestibular influences. Bo E. Gernandt, Yasuji Katsuki, and Robert B. Livingston 453

Differentiation of tonic from phasic alpha ventral horn cells by stretch, pinna and crossed extensor reflexes. Ragnar Granit, C. G. Phillips, Sten Skoglund, and Göran Steg 470

Conditioned electrocorticographic potentials and behavioral avoidance response in cat. Kao Liang Chow, W. C. Dement, and E. Roy John 482

Physiological and pharmacological consequences of different synaptic organizations in cerebral and cerebellar cortex of cat. Dominick P. Purpura and Harry Grundfest 494

Functional organization of neuromuscular spindle in toad. Carlos Eyzaguirre 523

COLLOQUIUM ON THE HISTORY OF NEUROPHYSIOLOGY HELD AT THE ANNUAL MEETING OF THE AMERICAN ELECTROENCEPHALOGRAPHIC SOCIETY, ATLANTIC CITY, N. J., JUNE 1956

The Sherrington school of physiology. D. Denny-Brown 543

Reviews 549

Manuscripts accepted for publication 552

NO. 6, NOVEMBER 1957

Postsynaptic electrogenesis in septate giant axons. I. Earthworm median giant axon. C. Y. Kao and H. Grundfest 553

Evolution of some electrical signs of conditioning. Part I. Normal cat and rabbit. Frank Morrell, Robert Naquet, and Henri Gastaut 574

Effects of cingulectomy on social behavior in monkeys. Allan F. Mirsky, H. Enger Rosvold, and Karl H. Pribram 588

Negative after-potential of frog's skeletal muscle. George B. Frank 602

Effects of small frontal lesions on delayed alternation in monkeys. Mortimer Mishkin 615

Reviews 623

Manuscripts accepted for publication 626

Index 628